

ABSTRACT OF THE INVENTION

A fuel pressure control system for a fuel injected engine measures the fuel pressure at an outlet of a fuel pump and controls the operating speed of the fuel pump as a function of the difference between a desired pressure and a measured pressure. Signals are provided to the fuel pump which are pulse width modulated signals that have a pulse width determined as a function of the desired pressure at the outlet of the pump and an actual measured pressure at the outlet of the pump. The desired pressure is determined as a function of air flow into the engine, a desired air/fuel ratio which, in turn, is a function of engine speed and the load on the engine, and a desired fuel rate which is determined as a function of the air/fuel ratio and the air flow into the engine. The desired fuel rate is then used to select a pressure at the outlet of the pump which will result in the desired fuel rate.